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CLAIMS

What is claimed is:

- 1 1. A method for generating an index for a master
2 table in a record management system, wherein a set of
3 N dimension values are represented throughout a set of
4 records in said master table, and wherein N is an
5 integer, said method including the steps of:
6 (a) identifying records in said set of records in
7 said master table that include a dimension value in
8 said set of N dimension values, wherein said dimension
9 value is identified by a variable name `dimension_valuen`,
10 wherein n is an integer in a range of 1 to N; and
11 (b) generating a dimension index record in said
12 index, wherein said dimension index record is
13 identified by a variable name `dimension_index_recordn`,
14 wherein said `dimension_index_recordn` identifies said
15 records identified in said step (a).

1 2. The method of claim 1, wherein said records
2 identified in said step (a) include all records in said
3 master table that include said `dimension_valuen`.

1 3. The method of claim 1, wherein said step (a)
2 and said step (b) are each performed N number of times

1 with n being equal to a different value in said range
2 of 1 to N each of said N times.

1 4. The method of claim 1, wherein said
2 dimension_index_record_n identifies a dimension
3 associated with said dimension_value_n.

1 5. The method of claim 1, wherein said
2 dimension_index_record_n identifies said
3 dimension_value_n.

4
5 6. A method for creating a foundation for
6 enabling data to be multi-dimensionally manipulated,
7 comprising the steps of:

8 storing a set of data records, each data record
9 having at least one measure value and a plurality of
10 dimension values;

11 determining, from all dimension values in said set
12 of data records, which dimension values are distinct;
13 and

14 for each distinct dimension value:

15 identifying all data records containing said
16 distinct dimension value;

17 generating a mapping to all the data records
18 in said set of data records containing said distinct
19 dimension value; and

20 storing said mapping in association with said
21 distinct dimension value into an entry of a master
22 index.

1 7. The method of claim 6, wherein said master
2 index is stored as a separate structure from said set
3 of data records, and wherein said mapping contains no
4 measure values.

1 8. The method of claim 6, wherein said set of
2 data records is stored as a relational table, wherein
3 said master index is stored as a separate structure
4 from said relational table, and wherein said mapping
5 contains no measure values.

1 9. A computer readable medium having a set of
2 instructions stored therein for enabling a computer to
3 generate an index for a master table in a record
4 management system, wherein a set of N dimension values
5 are represented throughout a set of records in said
6 master table, and wherein N is an integer, said set of
7 instructions including:
8 a first set of instructions, which when executed by
9 the computer cause the computer to identify records in
10 said set of records in said master table that include
11 a dimension value in said set of N dimension values,

12 wherein said dimension value is identified by a
13 variable name dimension_value_n, wherein n is an integer
14 in a range of 1 to N; and

15 a second set of instructions, which when executed
16 by the computer cause the computer to generate a
17 dimension index record in said index, wherein said
18 dimension index record is identified by a variable name
19 dimension_index_record_n, wherein said
20 dimension_index_record_n identifies said records
21 identified to include said dimension_value_n.

1 10. The computer readable medium of claim 9,
2 wherein said records identified to include said
3 dimension_value_n include all records in said master
4 table that include said dimension_value_n.

1 11. The computer readable medium of claim 9,
2 wherein said dimension_index_record_n identifies said
3 dimension_value_n and a dimension associated with said
4 dimension_value_n.

1 12. The computer readable medium of claim 9,
2 wherein said set of instructions further includes:
3 a third set of instructions, which when
4 executed by the computer cause the computer to execute
5 said first set of instructions and said second set of

6 instructions N number of times with n being equal to a
7 different value in said range of 1 to N each of said N
8 number of times.

1 13. A record management system comprising:
2 a master table storage unit for maintaining a set
3 of records, wherein a set of N dimension values are
4 represented throughout said set of records and wherein
5 N is an integer;
6 a master table index storage unit; and
7 an index engine coupled to said master table storage
8 unit and said master table index storage unit for
9 generating an index of said master table storage unit
10 in said master table index storage unit.

1 14. The record management system of claim 13,
2 wherein said index engine identifies records in said
3 set of records in said master table storage unit that
4 include a dimension value in said set of N dimension
5 values, wherein said dimension value is identified by
6 a variable name `dimension_valuen`, wherein n is an
7 integer in a range of 1 to N.

1 15. The record management system of claim 14,
2 wherein said index engine generates a dimension index
3 record in said master table index storage unit, wherein

4 said dimension index record is identified by a variable
5 name dimension_index_record_n, wherein said
6 dimension_index_record_n identifies said records
7 identified to include said dimension_value_n.

1 16. The record management system of claim 15,
2 wherein said dimension_index_record_n identifies said
3 dimension_value_n and a dimension associated with said
4 dimension_value_n.

1 17. The record management system of claim 15,
2 wherein said records identified to include said
3 dimension_value_n include all records in said master
4 table storage unit that include said dimension_value_n.